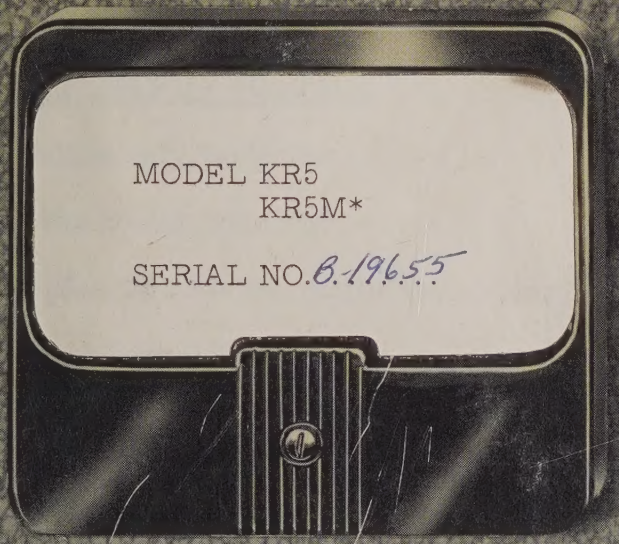
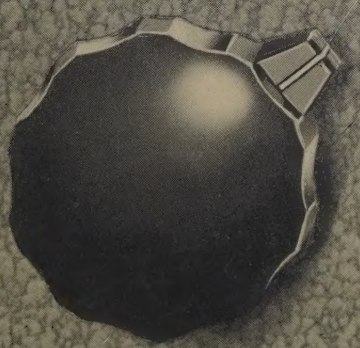
# Kepco

INSTRUCTION MANUAL




## * VOLTAGE REGULATED POWER SUPPLIES



Kepco Inc.

MODEL KR5
KR5M*

SERIAL NO. B-19655

KEPCO, INC.
131 - 38 Sanford Avenue
Flushing 55, New York

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Kepco, Inc.
Flushing, New York

KEPCO LABORATORIES, INC.
131 - 38 Sanford Avenue
Flushing 55, New York

# VOLTAGE REGULATED POWER SUPPLY

## MODEL KR5
## KR5M*

SPECIFICATIONS:

### DC OUTPUT VOLTAGE

VOLTAGE: 100-200 volts continuously variable.

CURRENT: 0-600 milliamperes continuous duty.

REGULATION: In the range 100-200 volts the output voltage variation is less than 0.2 volts for line fluctuation from 105-125 volts, and less than 0.2 volts for load variations from minimum to maximum current.

RIPPLE VOLTAGE: The ripple voltage is less than 3 millivolts RMS under any condition of loading and line voltage within the limits specified above.

### AC OUTPUT VOLTAGES

VOLTAGE: Two 6.3 volts, unregulated, and isolated from chassis and DC output.

CURRENT: 10 amperes maximum each, may be operated in series or parallel. For series operation, 12.6 volts at 10 amperes, join terminals 5 to 6 and connect to 4 and 7. For parallel operation, 6.3 volts at 20 amperes, join terminals 4 to 6 and terminals 5 to 7 and connect to either pair.

POWER REQUIREMENTS: 105-125 volts, 50-65 cycles.

FUSE PROTECTION: Input fuse and DC output fuses on front panel.

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OUTPUT TERMINATIONS: The DC and AC output terminals are brought out to a barrier strip on the rear of the chassis. Either positive or negative terminal of the DC supply may be grounded. A terminal is provided on the barrier strip for this purpose. Two blank terminals are also provided.

* METERS: Voltmeter: 0-200 volts, 3-1/2" rectangular.

Milliammeter: 0-600 milliamperes, 3-1/2" rectangular.

CONTROLS: Power on-off switch and DC on-off switch on front panel. DC output control - screwdriver locking type mounted at the rear of the chassis.

PHYSICAL SPECIFICATIONS: Rack panel construction. Panel height 10-1/2", width 19", depth 13", color Kepco standard gray hammertone. This unit is designed for relay rack mounting.

OPERATING INSTRUCTIONS: The Kepco Model KR5, KR5M Regulated Power Supply is shipped with all tubes in place and is ready for operation.

PROCEDURE FOR TURNING ON POWER SUPPLY:

Turn on the AC power switch and allow the power supply 1/2 minute warm up time for the time delay relay to operate. Turn on the DC output switch to apply the regulated voltage to the load.

The time delay relay in this unit is a thermal type. When the thermal time delay relay closes, an auxiliary double pole-double throw relay is activated. One half of this relay removes the heater voltage from the time delay relay. The other half of the relay closes the primary circuit of the high voltage plate transformer. In the event that the line voltage should fail momentarily, this double pole-double throw relay will be de-energized. When the line voltage is again turned on, the DC voltage will not re-appear

for approximately thirty seconds.

To adjust the DC output voltage to any setting within the range of the instrument, loosen the locking nut on the voltage control. Set the control to the desired voltage and then tighten the locking nut.

MAINTENANCE: The components of the Model KR5, KR5M Regulated Power Supply have been selected and tested to provide long and trouble free operating life. The only service necessary should be the replacement of vacuum tubes. The location of the tubes is clearly marked on the chassis.

REPAIRS: Should any trouble develop in the instrument, it may be serviced with the aid of the schematic diagram. Major repairs, however, are usually handled by the factory.

Under no circumstances should the instrument be returned to the factory without proper authorization and shipping instructions. In any correspondence with the factory concerning repairs, the type and serial number of the instrument must be given together with a description of the trouble encountered.

# PARTS LIST - MODEL KR5, KR5M*

## DRAWING S-KR5, KR5M-01

| | | | |
|---|---|---|---|
| C1 | - 10 | MF | 600 WV |
| C2 | - 10 | MF | 600 WV |
| C3 | - 10 | MF | 600 WV |
| C4 | - 10 | MF | 600 WV |
| C5 | - 10 | MF | 600 WV |
| C6 | - 10 | MF | 600 WV |
| C7 | - 4 | MF | 1000 WV |
| C8 | - 500 | MMF | 2000 WV |
| C9 | - 0.1 | MF | 600 WV |
| C10 | - 0.1 | MF | 600 WV |
| C11 | - 0.1 | MF | 600 WV |
| C12 | - 0.25 | MF | 600 WV |
| C13 | - 500 | MMF | 2000 WV |
| C14 | - 500 | MMF | 2000 WV |
| C15 | - 22 | MMF | 2000 WV |
| C16 | - 0.01 | MF | 1600 WV |

| | |
|---|---|
| F1 | - 8 Amp. Fuse |
| F2 | - 3/4 Amp. Fuse |

| | |
|---|---|
| *M1 | - Milliammeter 0-600 MA DC |
| *M2 | - Voltmeter 0-200 V DC |

| | |
|---|---|
| PL1 | - Neon Pilot Light NE-51 |
| PL2 | - Neon Pilot Light NE-51 |

| | | | |
|---|---|---|---|
| R1 | - 250 | K | 2 watt Pot. |
| R2 | - 12.5 | K | 10 watt |
| R3 | - 5 | K | 20 watt |
| R4 | - 100 | K | 20 watt |
| R5 | - 100 | Ohm | 1 watt |
| R6 | - 100 | Ohm | 1 watt |
| R7 | - 100 | Ohm | 1 watt |
| R8 | - 100 | Ohm | 1 watt |
| R9 | - 100 | Ohm | 1 watt |
| R10 | - 100 | Ohm | 1 watt |
| R11 | - 100 | Ohm | 1 watt |
| R12 | - 1.5 | Meg. | 1 watt |
| R13 | - 100 | Ohm | 1 watt |
| R14 | - 100 | Ohm | 1 watt |
| R15 | - 100 | Ohm | 1 watt |
| R16 | - 100 | Ohm | 1 watt |
| R17 | - 100 | Ohm | 1 watt |
| R18 | - 100 | Ohm | 1 watt |

PARTS LIST - MODEL KR5, KR5M*

DRAWING S-KR5, KR5M-01

| | | | |
|---|---|---|---|
| R19 | - 100 | Ohm | 1 watt |
| R20 | - 47 | Ohm | 1 watt |
| R21 | - 47 | Ohm | 1 watt |
| R22 | - 47 | Ohm | 1 watt |
| R23 | - 47 | Ohm | 1 watt |
| R24 | - 47 | Ohm | 1 watt |
| R25 | - 47 | Ohm | 1 watt |
| R26 | - 47 | Ohm | 1 watt |
| R27 | - 1 | Meg. | 1 watt |
| R28 | - 5.6 | Meg. | 1 watt |
| R29 | - 470 | K | 1 watt |
| R30 | - 470 | K | 1 watt |
| R31 | - 5.6 | Meg. | 1 watt |
| R32 | - 1 | Meg. | 1 watt |
| R33 | - 120 | K | 1 watt |
| R34 | - 150 | K | 1 watt |
| R35 | - 56 | K | 1 watt |
| R36 | - 150 | K | 1 watt |
| R37 | - 56 | K | 1 watt |
| R38 | - 56 | K | 1 watt |
| R39 | - 10 | K | 1 watt |
| R40 | - 270 | K | 1 watt |
| R41 | - 270 | K | 1 watt |

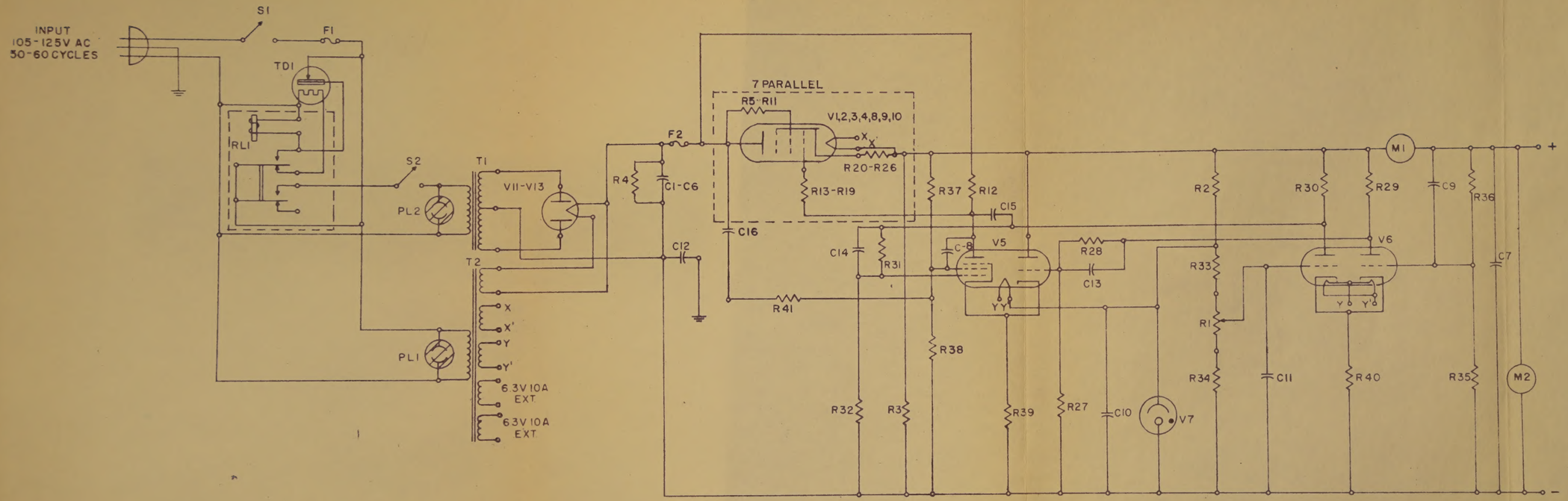
RL1 - DPDT Relay

SW1 - SPST Switch
SW2 - SPST Switch

T1 - Kepco #100-702
T2 - Kepco #100-595

TD1 - 117-30-GO or 115 NO 30T

V1 thru V4 - 6550
V5 - 6AW8A
V6 - 12AX7
V7 - 85A2/OG3
V8 thru V10 - 6550
V11 thru V13 - 5U4GB




TERMINAL STRIP

| – | G | + | 6.3 | | 6.3 | | | |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

VOLTAGE RANGE

100-200V 600MA
6.3V AC 10AMPS
6.3V AC 10AMPS

M1,M2-KR5M ONLY

KEPCO LABORATORIES

FLUSHING NEW YORK

| | |
|---|---|
| ITEM | POWER SUPPLY |
| MODEL | KR5-KR5M |
| DWG NO. | S-KR5-KR5M-01 |
| DES. | |
| APPD. | K.K. |
| DFTM | W.V.D |
| CHKD | K.K. |
| | 10-21-59 |

KEPCO, INC. • 131-38 SANFORD AVENUE • FLUSHING 55, N. Y. • IN 1-7000